Grease Monkey
By Bill O'Brien

It was a bitter cold early Monday morning in late November. The icy wind was blowing out of the southwest at 15 knots, gusting to 20. The sunrise was barely an hour old, and the faint reddish orb in a cloud-covered eastern sky, offered the world below a pale light but no heat. Intuitively, everyone knew that today was the day that winter really began. And with the approach of winter came the unconditional surrender of the commuter ramp at Dulles Airport to winter's chill for the next three months.

The Beech 1900 commuter aircraft was parked at the far side of the ramp with the left engine cowling opened. On top of a metal work stand, a lone figure, dressed in a blue parka, his back hunched in an attempt to shield his hands from the cold wind, was removing a PT-6 turbine engine's igniter box.

Replacing an igniter box is usually an easy repair. One, which the aircraft mechanic was now working on, must have been changed out many times before. But today the job was made difficult, more time-consuming because of the cold wind and stiff, bare fingers that sometimes stick, painfully to the cold soaked metal of the engine's turbine housing.

I stood inside the cramped commuter airline's combination operations and maintenance office, nursing a cup of vending machine coffee and looking out the window watching the technician work. After a long while watching the man work, I took another sip of coffee, cradled the warm cup in both my hands and looked down at my own dark reflection in the bottom of the cup and remembered.

I remembered another time, another career, when I was standing on a similar metal work stand at another airport, huddled against the cold, working a similar airplane with similar problems, and feeling identical pressures to meet a deadline.

In the cup I saw my brilliant victories, meeting the gate, saving the day, and basking in the 15-minute spotlight of glory and honor that are the two glorious gifts of success. In the cup I also remembered wearing the sack cloth and ashes of failure and suffering the verbal abuse from my peers, two cruel gifts that my dismal failures handed me.

But most of all, I remembered the burden of responsibility that I and every other aircraft mechanic carries. Simply put, the lives of everyone who climbs aboard the aircraft depends on the mechanic's ability, judgement and skill to make an airworthy repair.

A mechanic must be 99.999 percent right all the time. He or she is not allowed a margin for error, no second chances, and no excuses for failure, not even if the wind chill factor is 5 below zero and passengers are waiting.

"What in Hell is taking so long!" the co-pilot said to no one in particular. Past reflections vanished as my eyes found the source of the outburst. He was a very young 25, and yet he had almost 3,200 hours in turbine-powered aircraft. He was tall, professional, confident, with a little touch of arrogance that comes with youth and dark sunglasses. I watched him for a few minutes as he paced back and forth in front of the dispatchers desk.

I had introduced myself to both the co-pilot and the captain an hour-and-a-half earlier and shown them my FAA ID. As expected, I received the cool, professional, "Welcome aboard" greeting that FAA Aviation Safety inspectors always receive from a crew when they are given the word the FAA is going to perform an enroute inspection.

If they were not happy with my being on board initially, their sense of humor sure did not improve after we boarded the aircraft and the left engine failed to light off and the seven Albany passengers had to deplane.

The co-pilot was now checking his watch as he paced. It was obvious that he was anxious to fly the trip, anxious to put a few more hours in his logbook, anxious to move up in his chosen profession.

Looking again into the reflection in the coffee cup, I asked myself a question. Have you noticed that most people on their way up are always anxious and self-centered? Earlier, the dispatcher told me that the co-pilot had interviews scheduled with three major airlines in the next two weeks. His future looked bright, he had set his goal, and he was almost there, but now another delay; he was slowed down again, this time by a man dressed in a winter parka standing on a maintenance stand.

The captain, ex-military retired C-141 driver, who had more silver in his hair than black, sat relaxed in an old chair reading the sports section of the Washington Post. Every now and then, I noticed him smile a small knowing smile as he glanced over his reading glasses and watched his co-pilot. I wondered, could the captain be reliving his own past as he watched with veiled amusement, his co-pilot's back-and-forth pacing in front of him? Was the captain recalling the same feelings, the same desires? Was he remembering the same pressures and anguish that the quest for the left seat in heavy iron and the four stripes of power demand?

Looking back out the window, I noticed that the technician had finished installing the igniter box and secured the cowling and was now heading toward the office. Immediately, other ramp personnel attached the tug's tow bar to the nose wheel and began pulling the aircraft to the gate.

The mechanic opened, entered, and shut the door to the line office in one quick practiced motion, keeping the loss of warm air to a minimum. His entrance was almost as fast as the second or two it took his glasses to fog over.

The co-pilot, now visibly irritated at being delayed, grabbed his chart bag and overcoat, started for the door, stopped, turned, came back to the dispatcher's desk where the mechanic was standing, looked him in the eye and said, "You cost us 25 minutes; we missed our gate time." The mechanic who was patiently polishing his glasses with a paper towel, slowly considered the co-pilot attack and quietly said, "I figure we are 33 minutes late, but the ball is now in your court and you better get a move on."

The co-pilot was about to say something he would probably regret later when the captain diplomatically interrupted and asked the mechanic to sign off the discrepancy and the flight release block. The mechanic complied by signing his name and certificate number which approved the aircraft for return to service.

The captain gave him a big smile, thanked the mechanic, and told him how much he appreciated the fast service. He then turned to me and asked if I was ready to board.

"One minute, captain, I would like to take a look at the maintenance records and the sign-off. "I'll bring the maintenance record with me."

As the mechanic turned the maintenance record around so I could check his entry, the co-pilot, who was now being hustled out the door by the captain, could not resist taking one parting shot at the mechanic. "Better come with us right now, Mr. Inspector, it'll take the 'Grease Monkey' another 33 minutes to figure out how to sign his name again!"

In that small room, two aircraft mechanics jaw muscles tightened ever so slightly, mine and the man in the winter parka. The remark, although not aimed directly at me, hurt. Old familiar anger boiled up from my belly; just enough of it slipped passed my defenses to flush my cheeks, and just as quickly, the anger faded. The co-pilot, like many others, I reasoned, did not understand what it meant and what it took to become a mechanic. "Let it pass," I thought to myself.

I checked the record entry, thanked and shook the mechanic's hand, picked up the maintenance records, and boarded the aircraft in plenty of time before the passengers were boarded and seated.

The trip to Albany was uneventful, and thanks to a good tail wind, ATC direct routing, and a wee more power than normal we were only seven minutes late at the Albany gate. I spent the rest of the morning and part of the afternoon performing an inspection of the commuter airline's maintenance

facility. Due to a scheduling change I found myself with the same aircraft and crew for the trip back to Dulles. Again the trip was the kind I like the best —uneventful.

After the passengers deplaned and the aircraft secured, the crew and I were walking together to the parking lot when the co-pilot asked me, "What exactly is an FAA Aviation Safety Inspector for Airworthiness, and what does he do?" In the 10-minute walk from the gate to the employees' parking lot, I explained that FAA Airworthiness Inspectors inspect mechanics and pilots, issue certificates and inspect air carriers, repair stations, mechanic schools, perform accident investigations, and give safety seminars.

It was one of my better attempts, I thought, to explain and justify my paycheck. In the parking lot, I shook hands with both the captain and co-pilot, mentally noting the difference between the pilots' smooth grasp vs. the mechanic's callous one. As I was persuading the government car to start, the co-pilot pulled up in his red Firebird, rolled down his window and said, "Keep up the good work, Mr. Airworthiness Inspector, and keep and eye on those grease monkeys for us." Before I could answer, he let out the clutch and was gone.

I never saw him at Dulles again. But I heard that he got that job flying the heavy iron. That was over six years ago. But I am still bothered by his remark. Now more than ever, I very much would like to sit him down and explain to him what it is like to be a mechanic. I want to tell him, who we are, what we do, and the responsibilities that we carry and how much we love our profession.

Maybe in your travels you might run into a pilot who still likes to call us "grease monkeys." I would consider it a personal favor if you could just tell him three things about mechanics for me.

First: Tell him that mechanics love their aviation professions just as much as pilots. But there is a difference. Pilots are in love with the magic and freedom of flight that flying an aircraft in a three-dimensional world allows them to experience.

Mechanics, on the other hand, carry on a technological love affair with the aircraft itself. This high-tech fascination with a flying machine is a complex one, involving hard numbers, complicated systems, close tolerances, and no margin for error.

Because of this union between human feelings and an aircraft, our profession's love affair is difficult to put into words. This is because many of us find it very hard to explain to someone outside the aviation maintenance profession the professional pride and satisfaction we mechanics are feeling when we take an ailing aircraft and put it back in the air again.

Don't make the mistake that because we either cannot or choose not to verbalize our feelings about our work, that our feelings about our profession are less intense than other members of the aviation community. To see for yourself how deep these feelings run, here is a test that you can perform. The next time you talk to a mechanic on the ramp or hangar, watch his eyes when an aircraft flies over. At the sound of the aircraft's engines, his eyes will leave yours for a moment, and track the aircraft. He does this, not to watch another demonstration of pilot skill, or marvel at the magic of flight, but to perform an inspection on the aircraft, a personal check to see if it is all right. Once the aircraft meets his approval, his eyes will return to meet yours.

This nano-second inspection will take place all the while he is still carrying on the conversation with you. This inbred, reflex inspection action and concern for safety that is part and parcel of each mechanic's psyche is the root cause behind this conditioned response. This check "to see if it is all right" would happen every time even if the mechanic was talking to the President of the United States and a Cessna 150 flew over. The mechanic has to check out that aircraft, to see if it is all right, it's our job, it's who we are, it's what we do.

Now, despite my poor explanation, can you see how difficult it is for someone to adequately express that kind of dedication to safety? How does one verbalize this intense level of concern? Perhaps this inability to express our professional pride and dedication to safety is the reason why the writers and poets of this world have yet to understand how a man or a woman with scars on their hands and flashlights in their pockets can carry this intense level of passion for excellence.

The second thing I would like you to tell him is how hard we had to work just to become an aircraft mechanic. Tell him we have paid our dues; we have earned the right to work on aircraft. Airframe and Powerplant (A&P) mechanics are the only maintenance professionals certificated by the federal government. Just to qualify to take the battery of three written, three oral, and three practical FAA examinations for the mechanic's A&P rating, an applicant must first graduate from an FAA-approved Part 147 Aviation Maintenance Technician School. The school must cover 43 subject areas and provide a minimum of 1,900 hours of instruction.

If an applicant makes application to take the examinations on civilian or miliary experience, he or she must show the FAA a minimum of 4,800 hours of practical airframe and powerplant experience.

Perhaps a better way to remember the numbers is to compare them against 1,500 hours for an FAA Air Transport Rating or 1,680 required classroom hours for a 127-college credit B.S. degree. In addition to the investment in time and training, mechanics have to invest heavily in their tools. An average, start-up aviation toolbox will cost an A&P mechanic approximately $3,000 to $4,000.

The last thing I would ask you
to tell him is that mechanics make up the technical brains, muscle,
and bones of aviation. We are
the quiet professionals who are working around the clock every day to ensure the safety of thousands of passengers. We carry the burden of responsibility for these thousands of lives willingly. Why then, could you tell me, since so much depends on the aviation maintenance professionals, why would anyone even remotely schooled about the complexity of aviation want to call us "grease monkeys?" Can you picture what aviation would be like without mechanics?